

REMARKS

Claims 16-31 are pending in the application. Claims 16-19 were rejected under 35 U.S.C. §102(e), as described on pages 2-3 of the Office Action. Claims 27-28 were rejected under 35 U.S.C. §103(a), as described on page 3 of the Office Action. Claims 20-26 and 29-31 were rejected under 35 U.S.C. §103(a), as described on page 4 of the Office Action. Claims 16, 20, 27 and 29 are the only independent claims.

Applicant respectfully traverses the rejection of claims 16-19 under 35 U.S.C. § 102(e), for the following reasons.

Independent claim 16 is drawn to a laser diode drive circuit comprising a laser diode operable to emit light based on a current, an adjustment circuit and a temperature compensation circuit. The temperature compensation circuit of claim 16 is required to be operable to generate a second voltage according to an ambient temperature, to generate a third voltage based on the first and second voltages and to **“adjust the current based on the third voltage.”**

It is respectfully submitted that Nakano fails to teach the above-identified limitations.

As illustrated in Fig. 2 of Nakano, and discussed in the reference, current controller 40 is connected to transistors Q1 and Q2 and laser diode 81 is connected to both current controller 41 and current controller 42. Accordingly, the amount of current supplied to laser diode 81 of Nakano is adjusted using **currents** from current controllers 40, 41 and 42. Therefore, Nakano fails to teach a circuit operable to **adjust the current of a laser diode based on a voltage**, as required in independent claim 16.

As anticipation under 35 U.S.C. § 102 requires that each and every element of the claim be disclosed in a prior art reference, *Akzo N.V. v. U.S. Int’l Trade Commission*, 808 F.2d 1471 (Fed. Cir. 1986), based on the foregoing, it is clear that Nakano does not anticipate claim 16.

Claims 17 and 19 are dependent upon claim 16, and therefore include all of the limitations thereof. It is therefore respectfully submitted that claims 17-19 are additionally novel over Nakano within the meaning of 35 U.S.C. § 102, and requested that the rejection of claims 16-19 under 35 U.S.C. § 102(e), be withdrawn.

Applicant respectfully traverses the rejection of claims 27-28, 20-26 and 29-31 under 35 U.S.C. § 103 and submits that claims 16-31 are patentable over the prior art of record within the meaning of 35 U.S.C. § 103, for the following reasons.

Similar to claim 16 as discussed above, each of independent claims 20, 27 and 29 require a laser diode operable to emit light based on a current and a circuit operable to **adjust the current based on a voltage**.

Accordingly, for reasons similar to those discussed above, it is respectfully submitted that each of independent claims 20, 27 and 29 are novel over Nakano within the meaning of 35 U.S.C. § 102.

It is respectfully submitted that Salter et al. (Salter) fails to teach the shortcomings of Nakano, such that a combination of the teachings of Nakano in view of Salter would teach that which is required in independent claims 16, 20, 27 and 29, within the meaning of 35 U.S.C. § 103.

As discussed on page 4 of the Office Action, Nakano fails to disclose “that an amplitude detection circuit comprises a bottom detector, a peak detector, and a differential amplifier.” Salter is therefore relied upon because it allegedly “discloses a drive circuit including such elements 24-28.” While not admitting to the alleged teachings of Salter discussed on page 4 of the Office Action, it is respectfully submitted that Salter nevertheless fails to teach a circuit operable to adjust current of a laser diode **based on a voltage**, as required in each of independent claims 16, 20, 27 and 29.

Because neither Nakano nor Salter teaches a circuit operable to adjust the current of a laser diode based on a voltage, it is respectfully submitted that a combination of the teachings of Nakano in view of Salter fail to teach that which is required in independent claims 16, 20, 27 and 29.

Furthermore, Fig. 3 of Salter illustrates a minimum level monitoring circuit 24 and a peak monitoring circuit 25 connected to a feedback photodiode 23. However Salter fails to disclose that the adjustment circuit generates a second voltage according to a difference between the bottom voltage and the peak voltage, or that the temperature compensation adjusts the current according to the third voltage as required in the present invention

Therefore, even if a person of ordinary skill in the art at the time of the invention were to combine the teachings of Nakano with the teachings of Salter, such a combination would fail to

disclose that the adjustment circuit generates a second voltage according to a difference between the bottom voltage and the peak voltage, or that the temperature compensation adjusts the current according to the third voltage as required in the present invention. Still further, such a combination of the teachings of Nakano and Salter would require three current controllers 40-42 to generate the currents (I_{ac} , I_{dc} and I_r) thereby increasing the size of circuit over that of the present invention.

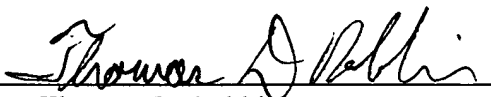
In light of the above discussion, it is respectfully submitted that each of independent claims 16, 20, 27 and 29 are patentable over the combination of Nakano in view of Salter within the meaning 35 U.S.C. § 103. Furthermore, as claims 17-19, 21-25, 28, 30 and 31 are dependent upon claims 16, 20, 27 and 29, respectively, it is respectfully submitted that claims 17-19, 21-25, 28, 30 and 31 are additionally patentable over the combination of Nakano in view of Salter within the meaning of 35 U.S.C. § 103. It is therefore requested that the rejection of claims 20-31 under 35 U.S.C. § 103 be withdrawn.

Having fully and completely responded to the Office Action, Applicants submit that all of the claims are now in condition for allowance, an indication of which is respectfully solicited.

If there are any outstanding issues that might be resolved by an interview or an Examiner's amendment, the Examiner is requested to call Applicants' attorney at the telephone number shown below.

Respectfully submitted,

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